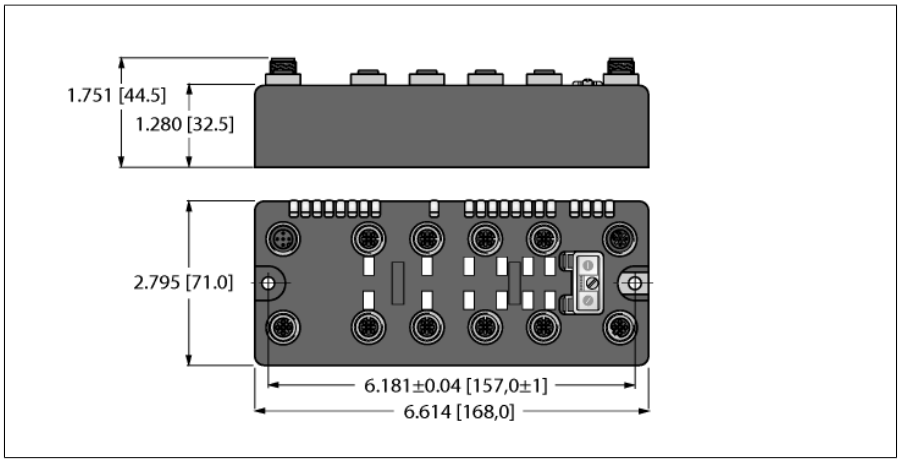
BL compact™ fieldbus station for DeviceNet™ 4 Analog Outputs for Voltage and 8 Configurable Digital PNP Channels
BLCDN-8M12LT-4AO-V-8XSG-P



Type	BLCDN-8M12LT-4AO-V-8XSG-P
ID	6811013
Nominal system voltage	24 VDC
System power supply	Via fieldbus and auxiliary power
Voltage supply connection	2 x M12, 4-pin
Admissible range V+	11…30 VDC
Nominal current V+	30 mA
Max. current V+	4 A
Admissible range Vi	18…30 VDC
Nominal current Vi	100 mA
Max. current Vi	2 A
Admissible range Vo	18…30 VDC
Nominal current Vo	150 mA
Max. current Vo	4 A
Electrical isolation	The inputs and outputs of the 8XSG I/O cards are supplied via a common ground. Therefore, it is recommend not to use this module for safety or emergency stop applications.
Fieldbus transmission rate	125/250/500 kbps
Adjustment transmission rate	Automatic detection
Fieldbus address range	0...63 64…80 (MacID programmable) 81…99 (manufacturer specific)
Fieldbus addressing	2 decimally coded rotary switches
Fieldbus connection technology	2 × M12
	5-pole
Fieldbus termination	external
Service interface	RS232 interface
Vendor ID	48
Product type	12
Product code	11013

- On-machine Compact fieldbus I/O block
- DeviceNet™ slave
- 125 / 250 / 500 kbps
- Two 5-pole M12 connectors for fieldbus connection
- 2 rotary switches for node address
- IP67, IP69K
- M12 I/O connectors
- LEDs indicating status and diagnostics
- Electronics galvanically separated from the field level via optocouplers
- 8 Configurable digital PNP channels, 24 VDC
- Max. 0.5A per channel
- Selection of filtering times (Input delay)
- Invertible inputs
- 4 analog voltage outputs
- -10/0…+10 VDC

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Digital inputs	From 8XSG
Input type	PNP
Type of input diagnostics	Group diagnostics
Sensor supply (V_{SENS})	24 VDC
Low-level signal voltage	4.5 V
Low-level signal voltage	< 4.5 VDC
High-level signal voltage	7…30 VDC
Low-level signal current	< 1.5 mA
High-level signal current	2.1…3.7 mA
Input delay	0.25 or 2.5 ms (configurable)

Digital outputs	From 8XSG
Output type	PNP
Sensor supply (V_{SENS})	24 VDC
Output current per channel	0.5 A
Output voltage	24 VDC
Output delay	3 ms
Load type	resistive, inductive, lamp load
Load resistance, resistive	> 48 Ω
Load resistance, inductive	< 1.2 H
Lamp load	< 3 W
Switching frequency, resistive	< 200 Hz
Switching frequency, inductive	< 2 Hz
Switching frequency, lamp load	< 20 Hz
Short-circuit protection	yes

Analog outputs	from 4AO-V
Operating modes	-10/0 … 10 V
Type of output diagnostics	Channel diagnostics
Sensor supply	24 VDC, 250 mA per channel
Load resistance, resistive	> 1 kΩ
Load resistance, capacitive	< 1 µF
Transmission frequency	< 100 Hz
Basic fault limit at 23 °C	< 0.2 %
Repeat accuracy	< 0.05 %
Temperature coefficient	< 300 ppm/°C of full scale
Resolution	16 bit
Measured-value display	16 bit signed integer
	12 bit full range left-justified

Dimensions	168 x 71 x 32.5 mm
Mounting	2 × 5.4 mm diameter holes, 1.7 Nm torque
Weight	620 ± 20 g
Housing material	Glass-filled nylon, nickel plated brass connectors
Housing color	Black
Material screw	Nickel-plated brass
Material label	Polyester with polycarbonate overlay
Ground label material	Nickel plated brass
Protection class	IP67
	IP69K
Ambient temperature	-40…+70 °C
Storage temperature	-40…+85 °C
Relative humidity	15 to 95% (non-condensing)
Vibration test	Acc. to IEC 61131-2
- up to 20 g (at 10 up to 150 Hz)	For mounting on base plate or machinery
Shock test	according to IEC 61131-2
Electromagnetic compatibility	Acc. to IEC 61131-2
Approvals and certificates	CE, cULus

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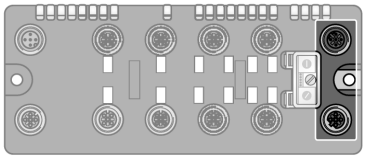
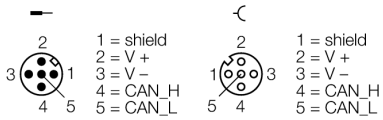
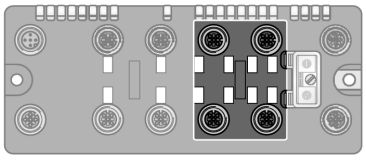
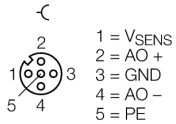
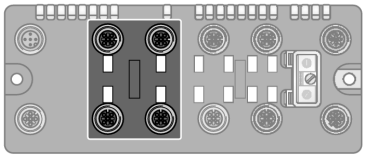
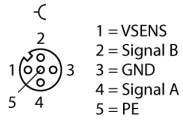
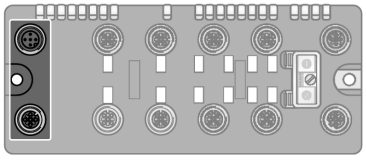
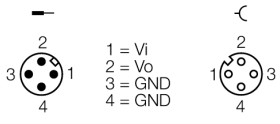
Pinning and wiring diagram

	**DeviceNet** Fieldbus cable (example): RSC RKC 572-2M ident-no. U0323 or RSC-RKC572-2M ident-no. 6603629	Pin Assignment 
	**Slot 1: Analog Outputs** Extension cable (example): RK 4.5T-2-RS 4.5T/S653 ident-no. U2187-09 or RKC4.5T-2-RSC4.5T/TEL ident-no. 6625212	Pin Assignment 
	**Slot 2: Digital Inputs and Outputs** Extension cable (example): RK 4.4T-2-RS 4.4T ident-no. U2445 or RKC4.4T-2-RSC4.4T/TEL ident-no. 6625208	Pin Assignment 
	**Auxiliary Power** Extension cable (example): RKC 4.4T-2-RSC 4.4T ident-no. U5264 or RKC4.4T-2-RSC4.4T/TEL ident-no. 6625208	Pin Assignment 

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Station LED status

LED	Color	Status	Description
IOs		OFF	No power
	RED	ON	Low power or station error
	RED	FLASHING (1 Hz)	I/O module configuration error
	RED	FLASHING (4 Hz)	No I/O module bus communication
	GREEN	ON	Station ok
	GREEN	FLASHING	Force mode active
MNS		OFF	No connection
	GREEN	ON	Connection established
	GREEN	FLASHING (1 Hz)	No connection established, device OK
	RED	ON	Duplicate MAC-ID
	RED	FLASHING	Connection time out
IO	GREEN	ON	I/O active
	GREEN	FLASHING (1 Hz)	One or more I/O in Idle State
	RED	ON	One or more I/O error
	RED	FLASHING	One or more I/O in Faulted State

I/O LED status slot 1

LED	Color	Status	Description
D1 *		OFF	No diagnostics active
	RED	ON	Station error/ module bus communication failure
	RED	FLASHING (0.5Hz)	Diagnostics active (Slot 1)
AO channels 0...3			Not connected (The analog outputs do not have a LED)

* D1 LED also indicates gateway diagnostics

I/O LED status slot 2

LED	Color	Status	Description
D2 *		OFF	No diagnostics active
	RED	ON	Station error/ module bus communication failure
	RED	FLASHING (0.5Hz)	Diagnostics active (Slot 2)
XSG channels 2_0...2_7		OFF	Channel status x = “0“ (OFF), no diagnostics active
	GREEN	ON	Channel status x = “1“ (ON)
	RED	ON	Short-circuit at output

* D2 LED also indicates gateway diagnostics

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I/O & Diagnostic Data Map

INPUT	BYTE	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	0	DI 2_7	DI 2_6	DI 2_5	DI 2_4	DI 2_3	DI 2_2	DI 2_1	DI 2_0
	1	-	-	-	-	-	-	-	-
Diagnostics	2	Module number reporting diagnostic data							
	3	Replace Station	-	Diagnostics Active	-	-	-	-	-
Slot 1 (ref. Byte 2)	4	Hardware Failure	-	-	-	AO 1_0 Overflow/Underflow	-	-	Range Error AO 1_0
	5	Hardware Failure	-	-	-	AO 1_1 Overflow/Underflow	-	-	Range Error AO 1_1
	6	Hardware Failure	-	-	-	AO 1_2 Overflow/Underflow	-	-	Range Error AO 1_2
	7	Hardware Failure	-	-	-	AO 1_3 Overflow/Underflow	-	-	Range Error AO 1_3
OUTPUT	**BYTE**	**Bit 7**	**Bit 6**	**Bit 5**	**Bit 4**	**Bit 3**	**Bit 2**	**Bit 1**	**Bit 0**
AO 1_0	0	AO 1_0 LSB							
	1	AO 1_0 MSB							
AO 1_1	2	AO 1_1 LSB							
	3	AO 1_1 MSB							
AO 1_2	4	AO 1_2 LSB							
	5	AO 1_2 MSB							
AO 1_3	6	AO 1_3 LSB							
	7	AO 1_3 MSB							
	8	DO 2_7	DO 2_6	DO 2_5	DO 2_4	DO 2_3	DO 2_2	DO 2_1	DO 2_0
	9	-	-	-	-	-	-	-	-

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